

Application No.: 10/828,411
Art Unit 3714

REMARKS

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1. Claims 1-30 are pending.
2. The Office Action mailed 05/08/2007 has been reviewed.
3. In response to the Office Action:
First, claims 1, 9-11, 13, 15, 19, 22, 25 and 28 hereby are amended;
Second, claims 2-8, 12, 14, 16-18, 20-21, 23-24, 26-27 and 29-30 hereby are canceled; and
Third, twenty (20) new claims numbered 31-50 hereby are presented.
It is believed that NO ADDITIONAL FILING FEE is due.
4. All amendments are fully supported by the originally-filed specification. See, for example, the following portions of the equivalent U.S. Patent Application Publication, "Video game system including a micromechanical dispensing device," by Joel A. Kubby et al., published 16 June 2005 as Pub. No. US 2005/0130747A1:
paragraph 0052 ("micromechanical dispensing mechanism");
paragraph 0081 ("electrostatically-driven membrane" and "electrostatically-actuated diaphragm");
paragraph 0086 ("movable piston structure");
paragraph 0088 ("piston structure 110 moves ... due to electrostatic attraction ... ejecting fluid through nozzle hole");
paragraph 0099 ("thermally-actuated paddle vane" and "conductive resistive heating"); and
paragraph 0100 ("To eject a drop ... heated so as to undergo thermal expansion ... such that the effects ... result in large movements of the paddle end").
5. The remarks below are directed to the remaining claims 1, 9-11, 13, 15, 19, 22, 25, 28 and 31-50. It is noted that the foregoing claims 31-50 are newly-presented.

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6. Claims 1, 9-11, 13, 15, 19, 22, 25 and 28 were rejected under 35 U.S.C. section 102(b) as being anticipated by David A. Martin, U.S. Pat. No. 5,610,674 ("Martin"). In response, these claims hereby are amended to more adequately and more patentably distinguish the claimed invention over this reference. As a result, and for the reasons discussed below, it is believe these rejections are traversed.

7. Based on M.P.E.P. section 706.02, "for anticipation under 35 U.S.C. 102, the reference (Martin) must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present".

In contrast, however, when claims 1, 9-11, 13, 15, 19, 22, 25 and 28 are compared to Martin, substantial differences become apparent. This is explained below.

8. Claim 1 is directed to:

"A video game system (1000) including a video game system controller (1010) that is arranged to execute a video game program, the video game system further including a micromechanical dispensing device (200, 400, 600, 700) that is arranged to dispense at least one fluid (1091) into an atmosphere (1020) under control of the video game system controller; where the micromechanical dispensing device comprises one or more micromechanical dispensing mechanisms (210, 212, 410, 411, 412, 610, 710, 711, 712); where the one or more micromechanical dispensing mechanisms comprise a thermally-actuated-and-driven paddle vane; and where the one or more micromechanical dispensing mechanisms are formed using micromachining and etching techniques; further comprising a sensor (1030) arranged to form a sensor signal (1035) based on an atmospheric substance (1080) comprised in the atmosphere and to communicate the sensor signal to the video game system controller, wherein the video game system controller is arranged to control the micromechanical dispensing device (200, 400, 600, 700) based on the sensor signal (1035)",

claim 1, emphasis added.

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9. It is noted that claim 1 includes the following first limitation:

*"where the one or more micromechanical dispensing mechanisms
comprise a thermally-actuated-and-driven paddle vane",
claim 1, emphasis added.*

In contrast to this first limitation, Martin DOES NOT DISCLOSE and DOES NOT TEACH any "thermally-actuated-and-driven paddle vane".

In further contrast, while Martin does include an upstream isolation membrane 131 with a slot perforation 137 and a downstream isolation membrane 132 with a slot perforation 134, Martin clearly teaches that his slot perforations 137 and 132 are activated or driven by air pressure supplied by his air pump or compressed gas supply 82 as depicted in his Figures 3-4. As Martin states at col. 5, lines 64-67: "The membrane 131 has a slot perforation 137 to allow the incoming air under pressure to pass therethrough and through the porous material 133 holding the fragrance therein".

See also Martin's claim 1 at col. 8, lines 23-24: "a source of pressurized gas connected to each fragrance dispenser".

See also Martin's claim 7 at col. 8, lines 53-58: "... said fragrance dispenser flexible membrane member has a slot opening therein which is opened to the egress of a fragrance when said flexible membrane is expanded responsive to gas pressure from said source of pressurized gas", emphasis added.

Further, a computerized search shows that the Martin patent text is DEVOID of EACH and ALL of the following words:

- "thermal" ;
- "thermally" ;
- "paddle" ; and
- "vane",

all of which words are REQUIRED to form the first limitation:

"where the ... comprise a thermally-actuated-and-driven paddle vane".

As a result, this first limitation is NOT FOUND in Martin.

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10. It further is noted that claim 1 includes the following second limitation:

*"and where the one or more micromechanical dispensing mechanisms are
formed using micromachining and etching techniques",*

claim 1, emphasis added.

In further contrast to this second limitation, Martin DOES NOT DISCLOSE and DOES NOT TEACH that his fragrance dispenser is "formed using micromachining and etching techniques".

Further, a computerized search shows that the Martin patent text is DEVOID of EACH and ALL of the following words:

- "micromachine" ;
- "micromachining" ;
- "etch" ; and
- "etching",

all of which words are REQUIRED to form the second limitation:

"and where ... formed using micromachining and etching techniques".

As a result, this second limitation is NOT FOUND in Martin.

11. In summary, as shown in 8-10 above, claim 1 comprises at least these TWO (2) limitations that are NOT satisfied by Martin. Thus, Martin does NOT teach every aspect of the claimed invention in claim 1, as required to support the rejection of anticipation. As a result, this rejection is traversed and claim 1 is allowable.

12. Claims 9-11, 13, 15, 19, 22, 25 and 28 are dependent on claim 1. As a result, these claims 9-11, 13, 15, 19, 22, 25 and 28 likewise are believed allowable at least on the grounds that they are dependent on its parent claim 1 which, as discussed in 8-11 above, is itself allowable.

13. Referring now to newly-presented Independent claim 31, this claim is directed to:
*"A video game system (1000) including a video game system controller
(1010) that is arranged to execute a video game program, the video game*

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system further including a micromechanical dispensing device (200, 400, 600, 700) that is arranged to dispense at least one fluid (1091) into an atmosphere (1020) under control of the video game system controller; where the micromechanical dispensing device comprises one or more micromechanical dispensing mechanisms (210, 212, 410, 411, 412, 610, 710, 711, 712); where the one or more micromechanical dispensing mechanisms comprise an electrostatically-actuated and driven piston; and where the one or more micromechanical dispensing mechanisms are formed using micromachining and etching techniques",

claim 31, emphasis added.

This new independent claim 31 contains the following limitation:

"where the one or more micromechanical dispensing mechanisms comprise an electrostatically-actuated and driven piston",

claim 31 limitation, emphasis added.

As for Martin, based on the discussion in section 10 above in connection with claim 1, Martin does NOT teach or suggest this claim 31 limitation. This is because Martin's fragrance dispenser, as described in Martin's claim 7 at col. 8, lines 53-58, is based on a " ... fragrance dispenser flexible membrane member [that] has a slot opening therein which is opened to the egress of a fragrance when said flexible membrane is expanded responsive to gas pressure from said source of pressurized gas", emphasis added.

Thus, Martin's dispenser has a flexible membrane slot opening structure, IN CONTRAST TO the claimed "piston" structure of claim 31.

Also, Martin's dispenser functions based on "gas pressure", IN CONTRAST TO the claimed "electrostatically-actuated and driven" function of claim 31.

Furthermore, similar to the discussion in section 10 above in connection with claim 1, Martin DOES NOT SATISFY the further claim 31 limitation:

"and where the one or more micromechanical dispensing mechanisms are

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formed using micromachining and etching techniques",

claim 31, emphasis added.

As a result of these differences between Martin and claim 31, claim 31 is allowable over Martin.

Claims 32-40 are dependent on claim 31. As a result, these claims 32-40 likewise are believed allowable at least on the grounds that they are dependent on its parent claim 31 which, as discussed above, is itself allowable.

14. Referring now to newly-presented independent claim 41, this claim is directed to:

*" A video game system (1000) including a video game system controller (1010) that is arranged to execute a video game program, the video game system further including a micromechanical dispensing device (200, 400, 600, 700) that is arranged to dispense at least one fluid (1091) into an atmosphere (1020) under control of the video game system controller; where the micromechanical dispensing device comprises one or more micromechanical dispensing mechanisms (210, 212, 410, 411, 412, 610, 710, 711, 712); **where the one or more micromechanical dispensing mechanisms comprise an electrostatically-actuated and driven membrane; and where the one or more micromechanical dispensing mechanisms are formed using micromachining and etching techniques"**,*

claim 41, emphasis added.

This new independent claim 41 contains the following limitation:

*"where the one or more micromechanical dispensing mechanisms comprise an **electrostatically-actuated and driven membrane**",*

claim 41 limitation, emphasis added.

As for Martin, based on the discussion in section 10 above in connection with claim 1, Martin does NOT teach or suggest this claim 41 limitation. This is because Martin's fragrance dispenser, as described in Martin's claim 7 at col. 8, lines 53-58, is

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based on a "... fragrance dispenser flexible membrane member [that] has a slot opening therein which is opened to the egress of a fragrance when said flexible membrane is expanded responsive to gas pressure from said source of pressurized gas", emphasis added.

Thus, Martin's fragrance dispenser functions on "gas pressure", IN CONTRAST TO the claimed "electrostatically-actuated and driven" function of claim 41.

Also, similar to the discussion in section 10 above in connection with claim 1, Martin DOES NOT SATISFY the further claim 41 limitation:

"and where the one or more micromechanical dispensing mechanisms are formed using micromachining and etching techniques",

claim 41, emphasis added.

As a result of these differences between Martin and claim 41, claim 41 is allowable over Martin.

Claims 42-50 are dependent on claim 41. As a result, these claims 42-50 likewise are believed allowable at least on the grounds that they are dependent on its parent claim 41 which, as discussed above, is itself allowable.

* * * *

In summary, it is believed the remaining claims 1, 9-11, 13, 15, 19, 22, 25, 28 and 31-50 are allowable and the application is in condition for allowance. Further consideration of this application is respectfully requested. Please direct questions to the undersigned attorney at the number below.